Remarks

This Amendment is in response to the Office Action mailed January 14, 2002. In the Office Action, the Examiner objected to the drawings, rejected claims 1-7, under 35 U.S.C. § 102, and rejected claims 8-24 under 35 U.S.C. § 103. Claims 1-24 remain pending in the application and new claims 25-32 have been added. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Drawings

1.   The Examiner objected to Figures 1A, 1B, and 2 for failing to show a Prior Art label.

Applicants herein submit a Proposal for Amendment of Drawings to correct Figures 1A, 1B, and 2 by properly showing a Prior Art label in each of these figures.

Applicants have submitted a Proposal for Amendment of Drawings to make these corrections.

Applicants respectfully request that the Examiner withdraw the objection.

2.   The Examiner objected to the drawings under 37 CFR 1.83(a) for failure to show every feature of the invention specified in the claims. In particular, the Examiner asserts that "a modified packet having a label, the first header and the second header" must be shown or these features must be cancelled from the claims.

Applicants have amended claim 21 to claim "a header", and amended the specification, based on the originally disclosed claim 21, to describe the use of one or more headers.

Applicants respectfully request that the Examiner withdraw the objection.

Specification

3. The Examiner objects to the disclosure (page 2, line 22 and page 7, line 13) under MPEP § 608.01 because it contains an embedded hyperlink.

Applicants have amended the relevant paragraphs in the detailed description to removed the embedded hyperlink.

Applicants respectfully request that the Examiner withdraw the objections.

Rejection Under 35 U.S.C. § 102

5. The Examiner rejects claims 1-7, under 35 U.S.C. § 102(e) as being anticipated by the admitted prior art shown in Figure 2 of the instant application.

The Examiner asserts that the admitted prior art in Figure 2 includes the claimed element of – a route table associated with the label. However, Figure 2 does not illustrate any kind of association between a table and a label. Figure 2 only illustrates a single table 206 to route all packets regardless of the packet label; it does not teach or suggest a separate table associated with each label as claimed. Thus, claim 1 is patentably distinct from the asserted prior art. Claims 2 - 7 are also allowable by virtue of their dependence on claim 1.

The Examiner is respectfully requested to withdraw the rejection of claims 1-7 under 35 U.S.C. § 102(e), as being anticipated by the admitted prior art of Figure 2.

Rejection Under 35 U.S.C. § 103

7.   The Examiner rejects claims 8-20 under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art shown in Figure 2 of the instant application.

The Office has the burden under 35 U.S.C. 103 to establish a *prima facie* case of obviousness. *In re Piasecki*, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787 (Fed. Cir. 1984).

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

"In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

The Examiner asserts that "[o]ne of ordinary skill in the art would have realized [that] the storing device for the routing table 206 could be configured to support a plurality of tables, i.e., one table per VPN-ID". (Office Action, page 4, ¶ 7) However, according to MPEP § 2143.01, "a statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill in the art at the time the claimed invention was made' ... is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references." The teaching or suggestion to make the claimed combination must be found in the prior art, not in the applicant's disclosure. (MPEP § 2143)

The Examiner argues that "[t]he motivation would have been to support various private addressing spaces." (Office Action, page 4, ¶ 7) The Examiner's argument ignores the fact that none of the cited references suggest the desirability, or even feasibility, of providing logically separated routing tables for each VPN-ID. The mere fact that the various elements claimed may be found in the cited prior art references and that one of ordinary skill in the art would have been able to combine them is insufficient as a matter of law. There must be a motivation to combine these components in the *manner* claimed.

"It is impermissible to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious." *In Re John R. Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780.

The Examiner's assertion that to support various private addressing spaces, one of ordinary skill in the art would have configured a routing table into multiple routing tables is insufficient as a matter of law because it does not rely on the teachings of the references and is based on hindsight. The alleged motivation for making the combination stems from the *result* of the combination, i.e. the combination more efficiently routes packets to virtual private networks by use of logically separate routing tables, which was disclosed only by the present application. Since the *result* of the combination did not exist, in the form claimed, in the art at the time of Applicants invention, the result cannot, as a matter of law, form the motivation for the combination and obviousness rejection.

Since none of the cited references, or admitted prior art, expressly or impliedly suggest the desirability of their combination and the Examiner has not presented a motivation for such combination which does not rely on the Applicants' disclosure, prima facie obviousness has not been shown.

In view of the remarks above, applicants respectfully request that the rejection of claims 8-20 under 35 U.S.C. § 103(a) be withdrawn.

8.   The Examiner rejects claims 21-24 under 35 U.S.C. § 103(a) as being unpatentable over Bots et al., U.S. Patent No. 6,226,748 B1 in view of admitted prior art of Fig. 2.

To more clearly point out and distinctly claim the invention, Applicants have amended claim 21. In particular, independent claim 21 now claims just – a header – rather than - a first header and a second header.

As argued above, the Examiner asserts that the admitted prior art in Figure 2 includes the claimed element of – a route table associated with the label. However, Figure 2 does not illustrate any kind of association between a table and a label. Figure 2 only illustrates a single table 206 to route all packets regardless of the packet label; it does not teach or suggest a separate table associated with each label as claimed. Thus, claim 21 is patentably distinct from the asserted prior art. Claims 22-24 are also allowable by virtue of their dependence on claim 1.

The Examiner is respectfully requested to withdraw the rejection of claims 21-24 under 35 U.S.C. § 103(a), as being anticipated by the admitted prior art of Figure 2.

Version With Markings to Show Changes Made

In the Description

Replace the paragraph on page 2, lines 15-22 with the following:

Packets destined from one user (say in Chicago in the illustration of Figure 1B) to another user (say in Boston in the illustration of Figure 1B) may be transmitted through an internet service provider (ISP) which supports VPNs. Each site connected to the ISP network advertises to the ISP a set of destinations reachable within the site. The ISP then redistributes this information to all other sites in the set of sites which form the VPN. This process is further described in <u>Heinanen, et al.</u>, VPN support with MPLS, Internet Draft, ~~draft-heinanen-mpls-vpn-01.txt,~~ March 1998.

Replace the paragraph on page 7, lines 9-24 with the following:

In the present invention such logically separated routed topologies are maintained for each VPN. A packet belonging to a VPN is identified by its VPN-ID. The VPN-ID is placed in the label field as defined by the Multi-protocol label switching standard, see <u>Callon et al.</u>, A Framework for Mulitprotocol Label Switching, ~~draft-ietf-mpls-framework-02.txt,~~ November, 1997.~~(Callon et al.).~~ In one embodiment, the VPN-ID is not used for forwarding, but merely identifies a routing table belonging to a particular VPN. In this embodiment the packet is forwarded by doing a standard IP destination address look-up on the table identified by the VPN-ID. In another embodiment, the VPN-ID identifies an MPLS forwarding table

corresponding to the VPN where the MPLS forwarding table is built based on the routing table corresponding to the VPN. In a third embodiment, the VPN-ID is a part of the MPLS forwarding label. A single MPLS forwarding table is built based on a separate route table for each VPN and the forwarding is done by looking up the MPLS label (comprising of the VPN-ID part and a forwarding label part) in the forwarding table.

Replace the paragraph on page 9, lines 7-10 with the following:

Turning first to Figure 3A, the label (e.g., VPN-ID 201) is used to identify a routing table for 304 or 305. The packet is then routed based on the reachability information in the IP header 203. In this embodiment, no label distribution protocol (e.g. MPLS) is required. In another embodiment, the packet may include a first header and a second header.

In the Claims

1   8.   (Amended) A method of routing in a network comprising:

2   a)   maintaining a first table corresponding to a first virtual private network;

3   b)   maintaining a second table corresponding to a second virtual private network;

4   and

5   c)   routing a packet based on the first table or the second table.

1   10.   (Amended) The method as recited by claim 8 wherein the first table and the

2   second table are forwarding tables.

082771.P277   -15-   In re Jagannath et al.
                                                                                        09/109,343

1   16.   (Amended) A method of routing in a network comprising:

2   a) maintaining a first forwarding table corresponding to a first virtual private network;

3   b) maintaining a second forwarding table corresponding to a second virtual private

4   network; and

5   c) routing a packet based on the first forwarding table or the

6   forwarding table.

1   21.   (Amended) A network comprising:

2   a) a first edge router coupled to receive a packet having a header~~a first~~

3   ~~header and a second header and~~ to transmit into a wide area network cloud a

4   modified packet having a label~~,~~ and the ~~first~~ header ~~and the second header~~;

5   b) a backbone router coupled to receive the modified packet and route the modified

6   packet based on a route table associated with the label; and

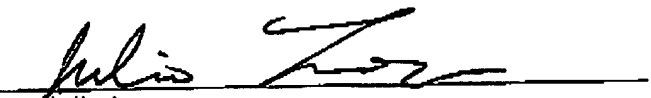7   c) a second edge router coupled to receive the modified packet.

Conclusion

In view of the amendments and remarks made above, it is respectfully submitted that the pending claims are in condition for allowance, and such action is respectfully solicited.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: May 13, 2002

Julio Loza
Reg. No. 47,758

12400 Wilshire Boulevard, Seventh Floor
Los Angeles, California 90025
(714) 557-3800

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8A)

I hereby certify that this correspondence is, on the date shown below, being:

MAILING

□ : *deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.*

FACSIMILE

☒ : *transmitted by facsimile to 703 872-9314 at the Patent and Trademark Office.*

Date: May 13, 2002

Pat Sullivan   5/13/02
Pat Sullivan   **Date**